

WHAT IS CLAIMED IS:

1. A communication method for use with a decentralized bus system to which a plurality of communication participants are connected, including a first master, which is assigned to a first master system, and a second master and a slave, which are assigned to a second master system, the second master system being associated with at least one application and being provided with a filter table containing data entries, said method comprising:

forming a message having a header and message data, including providing data entries in the header which correspond to data entries in the filter table;

- 10 transmitting the message from the first master over the bus system;

detecting the message in the second master system;

evaluating at least some of the header data, in the second master system, including comparing the header data entries with the data entries of the filter table; and

- 15 making the message data available to the application, when the header data entries match the data entries of the filter table.

2. A communication method according to claim 1, wherein the application is associated with the slave and the filter table is provided for the slave, and wherein said detecting, evaluating, and making steps are performed by the slave.

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3. A communication method according to claim 2, wherein said forming step includes providing message header data entries for publishing the message.

4. A communication method according to claim 2, wherein said forming step includes encoding the message header to specify a source address but no destination address.

5. A communication method according to claim 2, wherein the message sent by the first master is indistinguishable to the slave, as regards the message header, from a message sent by a communication participant within the second master system, in the context of cross-terminal traffic.

6. A communication method for use with a decentralized bus system to which a plurality of communication participants are connected, including a first master, which is assigned to a first master system, and a second master and a slave, which are assigned to a second master system, the slave being associated with at least one application, said method comprising:

forming a message having a header and message data, including providing data entries in the header which identify the message as a response using an internal code and which render the message header indistinguishable from a message sent by a communication participant within the second master system, in the context of cross-terminal traffic;

transmitting the message from the first master over the bus system;

detecting the message by the slave;

evaluating at least some of the header data by the slave; and

making the message data available to the application, when, during
15 said evaluating step, the data entries identifying the message as a response
using an internal code make the message appear to the slave as a cross-
terminal traffic message that could have been triggered by a stimulus of the
second master.

7. A communication system comprising:

a decentralized bus system;

a first active communication participant, which is connected to said
bus system and assigned to a first master system, said first active
5 communication participant is configured to form a message comprising a
header and message data and to transmit said message over said bus system;

a second active communication participant, which is connected to said
bus system and assigned to a second master system;

a passive communication participant, which is connected to said bus
10 system, assigned to said second master system, and configured to detect said
message;

at least one application associated with said passive communication
participant; and

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a filter table containing data entries that is provided for said passive
15 communication participant,
wherein said header of said message formed by said first active
communication participant comprises data entries which correspond to data
entries of said filter table, and wherein said passive communication participant
evaluates at least some of said header data, including comparing said header
20 data with said filter table data entries, and makes said message data available
to said application, when said header data match said filter table data entries.

8. A communication system according to claim 7, wherein said
message header data comprises:

a destination address; and

a source address.

9. A communication system according to claim 8, wherein said
filter table data entries comprise:

source address information; and

destination address information.

10. A communication system according to claim 8, wherein said
destination address and said source address are configured to publish said
message.

11. A communication system according to claim 7, wherein said
message header data comprises a source address but no destination address.

12. A communication system according to claim 11, wherein said filter table data entries comprise source address information but no destination address information.

13. A communication system according to claim 11, wherein said filter table data entries comprise:

source address information; and

source service access point information for filtering with respect to a
5 service access point used when said message was sent.

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